

The listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Previously presented) A method of real-time identification and verification of the identity of a person comprising the following steps:
 - providing a portable handheld device;
 - capturing an image of a fingerprint;
 - processing the fingerprint image to determine if the fingerprint image meets a predetermined quality level;
 - storing fingerprint images that satisfy the predetermined fingerprint quality level in temporary data storage of the portable handheld device;
 - enhancing the fingerprint image;
 - after enhancing the fingerprint image, transmitting fingerprint images that satisfy the predetermined fingerprint quality level to a central processor for processing;
 - processing the transmitted fingerprint images to determine if there is matching fingerprint information in central data storage;
 - receiving data from the central processor relating to the processed fingerprint image;
 - and
 - displaying the data received on a display of the portable handheld device.
2. (Original) The method of claim 1, wherein the step of capturing a fingerprint image includes the steps of:
 - positioning the finger on a finger receiving surface of the portable device; and
 - scanning a slap imprint of the finger.
3. (Original) The method of claim 2, wherein the finger receiving surface captures fingerprint images in varying illumination conditions ranging from bright sunlight to total darkness.
4. (Original) The method of claim 2, wherein the step of capturing a fingerprint image includes the steps of:
 - positioning the finger on a finger receiving surface of the portable device; and
 - scanning a rolled fingerprint.
5. (Original) The method of claim 1, wherein the step of capturing a fingerprint comprises scanning a latent imprint.

6. (Original) The method of claim 1, wherein the step of capturing a fingerprint image includes the step of determining the image quality of the fingerprint captured.

7. (Original) The method of claim 1, wherein the step of transmitting fingerprint images includes the steps of:

a wireless transmission from the portable handheld device to a wireless mobile unit for processing; and

wireless transmission from the wireless mobile unit to the central processor for comparison of the fingerprint images transmitted to a plurality of previously stored images to immediately determine identity and background information on individuals being fingerprinted in the field.

8. (Original) The method of claim 1, including the step of capturing a facial image and transmitting the captured facial image to a central processor, wherein the step of transmitting the facial image to the central processor includes the steps of:

a wireless transmission from the portable handheld device to a wireless mobile unit for processing; and

wireless transmission from the wireless mobile unit to the central processor for comparison of the facial images transmitted to a plurality of previously stored facial images to immediately determine identity and background information on individuals in the field.

9. (Original) The method of claim 1 further including the steps of recording, displaying, and transmitting live video images captured, wherein the step of transmitting the live video images captured includes the steps of:

a wireless transmission of the live video images captured from the portable handheld device to a wireless mobile unit for processing; and

wireless transmission of the live video images captured from the wireless mobile unit to the central processor for storage in central data storage.

10. (Original) The method of claim 1 further including the steps of recording, playing back, displaying, analyzing, and transmitting audio information captured, wherein the step of transmitting the audio information captured includes the steps of:

a wireless transmission of the audio information captured from the portable handheld device to a wireless mobile unit for processing; and

wireless transmission of the audio information from the wireless mobile unit to the central processor for comparison of the audio information transmitted to a plurality of previously

stored voice files to immediately determine identity and background information on individuals in the field.

11. (Original) The method of claim 1 further including the step of, capturing identification data from an external source.

12. (Original) The method of claim 11 wherein the external source is an identification card having an magnetic strip bar code.

13. (Original) The method of claim 11 wherein the external source is a smart card.

14. (Original) The method of claim 1 including the step of capturing geographical position and direction data.

15. (Original) The method of claim 1 including the step of transmitting a signal for emergency assistance.

16. (Previously presented) A portable apparatus for identification and verification of a fingerprint comprising:

- a housing having an ergonomic handle formed thereon that provides for one hand operation and command of all the functions of the apparatus;

- a user interface, attached to the housing for data input, display and receipt, the user interface including at least a finger-receiving surface for receiving images of a fingerprint and buttons for data entry and command execution;

- a sensor positioned within the housing for capturing the fingerprint images from the finger-receiving surface;

- a processor positioned within the housing and electrically connected to the sensor for processing the fingerprint images captured to determine if the fingerprint images captured meet a minimum fingerprint quality level;

- a transmitter positioned within the housing and electrically connected to the processor for transmitting fingerprint images to a central processor for identification and verification; and

- a module operating within the processor for the enhancement of the fingerprint image prior to transmittal of the fingerprint image.

17. (Previously presented) The portable apparatus of claim 16, wherein the portable handheld device further includes a module operating within the processor that provides for the capture of the fingerprint image prior to transmittal.
18. (Original) The portable apparatus of claim 16, wherein the portable handheld device further includes data storage electrically connected to the sensor for storing the fingerprint images captured that meet a minimum fingerprint quality level.
19. (Original) The portable apparatus of claim 16, including a removable baffle for preventing illumination sources to interfere with capturing the fingerprint on the finger-receiving surface.
20. (Original) The portable apparatus of claim 16 including a recorder that records and plays back audio and video information that is analyzed by the processor.
21. (Original) The portable apparatus of claim 16 wherein the user interface includes a card reader for entry of identification data from smart cards or cards having magnetic strips.
22. (Original) The portable apparatus of claim 16 wherein the user interface includes a bar code reader for entry of identification data.
23. (Previously presented) The portable apparatus of claim 16 including a GPS receiver electrically connected to the processor to provide for the capture of geographical position and direction data.
24. (Original) The portable apparatus of claim 16 including a wireless transmitter electrically connected to a single switch and the processor for transmitting a signal for emergency assistance when the single switch is engaged.
25. (Original) The portable apparatus of claim 16 wherein the user interface includes a data entry device for entry of text or voice data.
26. (Previously presented) The portable apparatus of claim 16 further including a latent fingerprint alignment guide.
27. (Original) The portable apparatus of claim 16 wherein the transmitter is a wireless transmitter.

28. (Previously presented) The method of claim 1, wherein enhancing the fingerprint image comprises at least one of the following steps:

- thresholding the image;
- enhancing contrast of the image;
- enhancing sharpness of the image; and
- inverting the image.

29. (Previously presented) A method of real-time identification and verification of the identity of a person comprising the following steps:

- providing a portable handheld device;
- capturing a facial image;
- storing facial images in temporary data storage of the portable handheld device;
- transmitting facial images to a central processor for processing;
- processing the transmitted facial images to determine if there is matching facial information in central data storage;
- receiving data from the central processor relating to the processed facial image; and
- displaying the data received on a display of the portable handheld device.

30. (Previously presented) The method of claim 29 wherein the step of capturing a facial image may be performed in varying illumination conditions ranging from intense illumination to total darkness.

31. (Previously presented) A method of real-time identification and verification of the identity of a person comprising the following steps:

- providing a portable handheld device;
- capturing an image of a fingerprint;
- processing the fingerprint image to determine if the fingerprint image meets a predetermined quality level;
- storing fingerprint images that satisfy the predetermined fingerprint quality level in data storage of the portable handheld device;
- transmitting fingerprint images that satisfy the predetermined fingerprint quality level to a central processor for processing;
- processing the transmitted fingerprint images to determine if there is matching fingerprint information in central data storage;

receiving data from the central processor relating to the processed fingerprint image at the handheld device; and
displaying the data received on a display of the portable handheld device.

32. (Previously presented) The method of claim 31, wherein the finger receiving surface captures fingerprint images in varying illumination conditions ranging from bright sunlight to total darkness.

33. (Previously presented) The method of claim 31, wherein the step of capturing a fingerprint image includes at least one of the steps of: positioning the finger on a finger receiving surface and scanning a rolled fingerprint or scanning a slap imprint of the finger.

34. (Previously presented) The method of claim 31 further including the step of capturing a facial image and wireless transmitting the captured facial image from the portable handheld device to a central processor.

35. (Previously presented) The method of claim 31 wherein the step of capturing a fingerprint comprises scanning a latent imprint using a photo capture sensor of the portable handheld device.

36. (Previously presented) A portable apparatus for identification and verification of a fingerprint comprising:

- a housing;
- a user interface for the housing, the user interface including at least a display and a finger-receiving surface to receive an image of a fingerprint;
- a sensor positioned within the housing to capture a fingerprint image from the finger-receiving surface;
- a processor positioned within the housing and electrically connected to the sensor to process the captured fingerprint image to determine if it meets a minimum fingerprint quality level;
- a transmitter positioned within the housing and electrically connected to the processor to transmit a fingerprint image to a central processor for identification and verification;

and

wherein the processor receives data from the central processor relating to the processed fingerprint image and the display is configured to display the data to a user of the apparatus.

37. (Previously presented) The portable apparatus of claim 36 further including a removable light baffle for preventing illumination sources to interfere with capturing the fingerprint on the finger-receiving surface.

38. (Previously presented) The portable apparatus of claim 37 wherein the baffle is arranged and configured to align a fingerprint with the finger receiving surface such that fingerprint characteristics are properly located relative to the sensor.

39. (Previously presented) The portable apparatus of claim 36 further including an ergonomic handle formed on the housing that provides for one hand operation and command of all the functions of the apparatus.

40. (Previously presented) The portable apparatus of claim 37 further including a photo capture sensor to capture a facial image and a latent fingerprint alignment guide configured and arranged with respect to the photo capture sensor to obtain latent fingerprint images.

41. (Previously presented) The portable apparatus of claim 40 wherein the alignment guide is removable.

42. (Previously presented) A portable apparatus for identification and verification of a fingerprint comprising:

- a housing;

- a user interface for the housing including at least a display;

- a photo capture sensor and a latent fingerprint alignment guide configured and arranged with respect to the photo capture sensor to obtain a latent fingerprint image;

- a processor positioned within the housing and electrically connected to the photo capture sensor to process a latent fingerprint image;

- a transmitter positioned within the housing and electrically connected to the processor to transmit a latent fingerprint image to a central processor for identification and verification; and

- wherein the processor receives data from the central processor relating to the processed latent fingerprint image and the display is configured to display the data to a user of the apparatus.

43. (Previously presented) The portable apparatus of claim 42 further including:

- a finger-receiving surface to receive an image of a fingerprint and a sensor positioned

within the housing to capture a fingerprint image from the finger-receiving surface; and

wherein the processor processes a captured fingerprint image and receives data from the central processor relating to the captured fingerprint image and the display is configured to display this data to the user.

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